

11.4: Discussion

Discussion

Write a minimum one-page (12 font, single spaced) discussion on the experiment conducted this week. Address **at least one question in each category** as fully as possible integrating the collected data, providing explanations for the observed trends, and evaluating whether your original assumptions about the experiment were validated by the results. **The assignment will be graded on completeness, clarity of the explanations and the meaningful integration of the collected and calculated data.** Correct grammar and appropriate format for the chemical formulae and chemical reactions is expected.

1. (Representation) Write a balanced chemical equation for the performed reaction indicating the states of all involved chemicals.
2. (Interpretation) Using your balanced chemical equation that describes the observed reaction, interpret its meaning on the microscopic and macroscopic scale.
3. (Existing knowledge, research, and views) Classify the chemical reaction and provide evidence to support your choice(s).
4. (Manipulation) Describe how percent yield is calculated and use your calculations to demonstrate the steps involved.
5. (Assumptions and Limitations) Describe at least one assumption you make when calculating the theoretical yield. Identify at least two reasons from your experiment that make it impossible for the actual yield and theoretical yield to be identical.
6. (Analysis) Compare the methods used by your group and identify which method resulted in the best percent yield. Describe any steps that the person who got that yield did differently.
7. (Analysis) Describe the purpose for having the thread hang loosely between the cups.
8. (Experimental design) Propose a method for testing your sodium carbonate at the end of the experiment to confirm that it didn't react with the water and the CO₂ from the air.

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